

CLAIMS

1. Medium for detecting and/or identifying microorganisms present in a sample, comprising a culture medium and at least one substrate that can be hydrolysed to a labelled product by at least a first enzyme not free in the sample, and specific for said microorganisms, characterized in that it also comprises at least one inhibitor of at least a second enzyme, different from the first enzyme or identical to it, but free in said sample and not originating from a microorganism.

5

2. Detection and/or identification medium according to Claim 1, characterized in that the microorganism is a bacterium.

10

3. Detection and/or identification medium according to Claim 2, characterized in that said bacterium belongs to the *Salmonella* genus.

15

4. Detection and/or identification medium according to Claim 1, characterized in that the microorganism is a yeast.

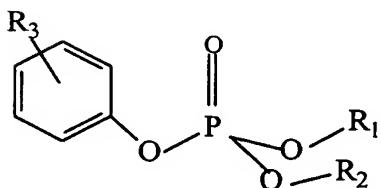
20

5. Detection and/or identification medium according to Claim 4, characterized in that said yeast belongs to the *Candida* genus.

6. Detection and/or identification medium according to any one of Claims 1 to 5, characterized in that said first enzyme is an esterase.

25

7. Detection and/or identification medium according to Claim 6, characterized in that the inhibitor is a compound of formula (I)



in which R₁ is a hydrogen atom, or an alkyl, aryl or halogen group,
R₂ is a hydrogen atom, or an alkyl, aryl or halogen group,
R₃ is nothing, or an alkyl, aryl or NO₂ group.

5

8. Detection and/or identification medium according to Claim 7, characterized in that the inhibitor is O,O-diethyl p-nitrophenyl phosphate and/or O,O-dimethyl p-nitrophenyl phosphate and/or O,O-di-(2-chloroethyl)-O-(3-chloro-4-methylcoumarin-7-yl) phosphate and/or at least one derivative of these molecules.

10

9. Detection and/or identification medium according to Claim 8, characterized in that the concentration of O,O-diethyl p-nitrophenyl phosphate or its derivative in the detection medium is between 0.1 and 15 mg/l, preferably between 1 and 10 mg/l.

15

10. Detection and/or identification medium according to Claim 8, characterized in that the concentration of O,O-dimethyl p-nitrophenyl phosphate or its derivative in the detection medium is between 0.1 and 100 mg/l, preferably between 10 and 50 mg/l.

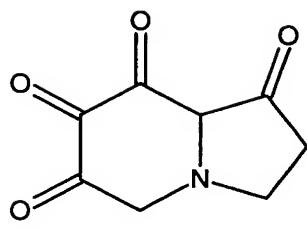
20

11. Detection and/or identification medium according to Claim 8, characterized in that the concentration of O,O-di-(2-chloroethyl)-O-(3-chloro-4-methylcoumarin-7-yl) phosphate or its derivative in the detection medium is between 1 and 1000 mg/l, preferably between 30 and 100 mg/l.

25

12. Detection and/or identification medium according to any one of Claims 1 to 5, characterized in that said first enzyme is an osidase, preferably a glucosidase.
13. Detection and/or identification medium according to any one of Claims 12, characterized in that the inhibitor is a compound of formula (II):

30



(II)

or a derivative of this compound.

14. Detection and/or identification medium according to Claim 13, characterized in that the concentration of compound of formula (II) or its derivative in the detection medium is preferably between 1 and 10 g/l, and even more preferably between 2 and 8 g/l.

5

15. Detection and/or identification medium according to any one of Claims 1 to 14, characterized in that said substrate is a chromogenic substrate, preferably an ester of indoxylo or of its derivatives.

10

16. Method for detecting and/or identifying microorganisms, comprising:

15

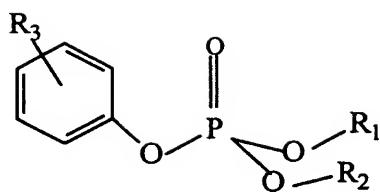
- seeding the microorganisms to be identified onto a detection medium, according to any one of Claims 1 to 15,
- incubating the detection medium seeded with the microorganisms to be identified, and
- determining the presence of microorganisms by detecting the substrate(s) hydrolysed to a labelled product.

20

17. Use of the detection and/or identification medium according to any one of Claims 1 to 15, for identifying microorganisms.

18. Use of a compound of formula (I)

25



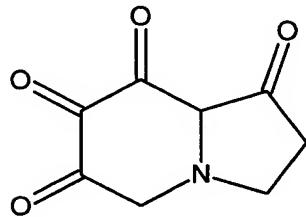
in which R₁ is a hydrogen atom, or an alkyl, aryl or halogen group,

R₂ is a hydrogen atom, or an alkyl, aryl or halogen group,

5 R₃ is nothing, or an alkyl, aryl or NO₂ group,

for inhibiting a free enzyme in a sample.

19. Use of a compound of formula (II)



10

for inhibiting a free enzyme in a sample.